CAREER PATTERNS IN HEALTH AND HOSPITAL ADMINISTRATION

by

STUART A. WESBURY, JR.

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Abstract of Dissertation Presented to the Graduate Council of the University of Florida in Partial Fulfillment of the Requirements for the Degree of Doctor of Philosophy

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by

Stuart A. Wesbury, Jr.

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Chairman: Dr. William V. Wilmot, Jr.
Co-Chairman: Dr. John M. Champion
Major Department: Department of Management and Business Law

Introduction

Since 1900, significant changes have occurred in the health care system. Patient care has been transformed from a primarily physician-patient relationship to a complex relationship involving the patient, physicians, other allied health personnel, and health organizations. These major changes in the delivery of health care have been accompanied by increasing need for administrative leadership in organizations. In the early 1900's, physicians and nurses were looked to for the provision of the necessary leadership. However, as the developing organizations became more

complex, leadership needs could not be filled in this manner. In 1934, the first graduate program in health administration was established by the University of Chicago. Since that time, more than 30 additional graduate programs have been established.

This study was designed to investigate the impact of such graduate programs on the field of hospital administration and to study the continued involvement of physicians in the administration of certain types of health programs. Several prior studies revealed the variety of employment situations currently filled by program graduates. However, little attention seems to have been paid to examining whether such graduates are filling the top administrative positions in such organizations. Also, in view of growing concern about employee loyalty to his employer, this study investigated several aspects of corporate loyalty.

Health Administrative Positions Studied

Educational and employment backgrounds of the administrators of the following health organizations were studied:

a) Hospital administrators

b) Blue Cross chief executives

c) Comprehensive health planning area-wide directors

d) Regional Medical Programs directors and administrative officers

e) State health department directors

f) Other state agency directors

g) U. S. Department of Health, Education and Welfare health-related executives

h) Hospital association directors

i) Miscellaneous health organization chief executives

j) Medical group practice administrators

Results and Conclusions

Graduates of programs in health administration were found not to occupy more than 20 per cent of the health leadership positions outside hospitals. In addition, physicians, without master's degrees in health administration, were found to occupy not less than 50 per cent of the leadership positions in state and federal health-related non-hospital programs.

In the last 11 years, the proportion of persons with master's degrees appointed to hospital administrator positions has not increased. Also, the proportion of hospital administrators with master's degrees did not demonstrate a direct increasing relationship with increasing hospital size. Hospital administrators with master's degrees tended to be younger than those without such a degree.

Health administrators tended to maintain their employment in only one health administrative employment category. However, most health administrators were found to have had more than one health employer,with administrators having master's degrees in health administration demonstrating more employment changes than those without such

degrees. Even though many employment changes were noted, few hospital administrators were found to have returned to a former employer having once served that employer in an administrative position. Length of tenure in hospital administrative positions was found to vary from 4.0 years to 5.4 years in previous positions and from 3.9 to 9.9 years in current positions. Hospital administrators with master's degrees in health administration tended to demonstrate shorter tenure than those without such a degree.

CHAPTER I

INTRODUCTION, LITERATURE SEARCH, AND STUDY OBJECTIVES

Introduction

Interest in careers in health administration is not a new or temporary hobby with this author. A close attachment with various segments of the nation's health care industry, extending back more than 20 years, has created for him a continuing and growing interest in those occupying, or preparing to occupy, health leadership positions. This period of time has seen a significant increase in the devotion of the nation's resources to health care and has also seen a growing interest on the part of many persons and organizations, including the federal government, in how the system functions and how it might be made to function more efficiently and more effectively. The pages that follow will document these changes and, more specifically, will take a look at those persons who occupy positions of leadership in health administration. It is felt that such a study will prove useful to several groups of people. First, existing health administrators should be able to learn more about those with whom they associate, as peers, in their normal working activities. Such knowledge should provide a

better understanding of points of view and provide greater appreciation for individual backgrounds. Second, programs of academic instruction at all levels might be provided with specific information related to career development. Such information might lead to curriculum alteration as well as improved counseling of students working toward a career in health administration. Third, individuals planning careers in health administration might find such information valuable as they plan their educational and employment programs. It is felt that knowledge of what others have done before them could provide appropriate direction and possibly stimulus to those interested in health administration careers.

It is with these goals in mind that this research project was initiated.

Changing Patterns of Health Care

Health care in the United States in the twentieth century is characterized by significant change. As described by Dr. Sidney Garfield, in 1900 only the very sick received physician care and, if hospitalization was required, limited nursing care provided the full spectrum of services available to that patient. Health care was essentially a person-to-person service and patient contacts with organizations existed only when hospitalization was required (1).

By 1935, the health picture had grown more complicated.

The field of medicine was adopting a more specialized approach to patient care and new paramedical roles brought increasing numbers of new personnel into the health care process. New and expanded use of diagnostic and treatment services added a great deal of complexity to the health care system. Sophistication of anesthesia techniques and the development of antibiotics greatly increased the demand for hospital services and made many operative and treatment procedures possible (2). From 1935 to date we have seen an acceleration of this process of change with more and more medical specialities evolving and much greater dependance upon the use of ancillary personnel to assist the physician (1). Throughout this process, organizations have taken a more important role in the provision of health services. The proliferation of ancillary personnel has necessitated a high level of coordination among these personnel (3). Thus, the patient has found himself more dependent upon groups of professionals and institutions such as hospitals and less upon face-to-face contact with his individual physician.

Along with the increased complexity of the health care delivery system, the financing of health care has undergone significant change (4). In the early 1900's, patients paid physicians directly for services rendered and, if hospitalization was required, it often occurred in a charitable institution without charge to the patient. It should be remembered that the patient usually wanted to be

treated at home because the hospital was essentially a place to die rather than a place to find a cure for illness (2). As services expanded and new techniques developed, the hospital became far more popular as a source of treatment. With this increased utilization, the charitable nature of hospitals slowly disappeared and routine billing of patients was initiated. This process promoted the creation of Blue Cross/Blue Shield and health insurance programs to assist the patient to pay for the rapidly expanded services provided by the health care system. Today, this system is financed by a great variety of sources including individual patients, Blue Cross/Blue Shield, insurance companies, philanthropy, and government at all levels (5). In 1970, 7.0 per cent of the nation's gross national product was devoted to health, while in 1950 only 4.6 per cent of the gross national product was so devoted (5). Today, the health care system is the third largest industry in the United States (6).

In addition to these many changes in our health care system, there has been a drastic change in our attitudes concerning a person's "right" to receive health care. Whereas in the early 1900's, health care was either paid for by the patient or, hopefully, provided by charitable means for those unable to pay, today health care has emerged in the minds of many, as a "right" to be provided for all citizens without regard to their ability to pay (2,7). As such, health care has become a major political

topic which has certainly added to complexity of the health care system. However, though increased in intensity, this political interest is not new. In fact, Theodore Roosevelt in his presidential platform in 1912 made national health insurance one of his major planks (7). Eventually, this concept reached fruition in the form of Medicare legislation in 1965. With the broad array of federal health programs including such programs as the Hill-Burton hospital construction program, Medicare, Medicaid, armed forces health service programs, research support and educational programs, the federal government's investment in health is already at the level of over 30 per cent of all money spent for health care and associated health activities in this country (8). However, in spite of this dramatic participation in the health care system, it appears that more federal government participation is in the offing. At the present time there are numerous bills before Congress that would affect changes in the federal government's involvement in the health care system (9). For example, the Kennedy-Griffiths bill would totally restructure our health care system and essentially nationalize all health care delivery in this country. On the opposite end of the spectrum, the American Medical Association's "Medicredit" proposal provides for little system change but improves the ability of the individual to pay for his care through tax credits. Essentially, all other proposals fall between these two extremes. With the forthcoming presidential election, these many

proposals will be discussed and altered before Congress commits itself to one proposal or another, if any. However, the consensus seems to be that the nation will see the adoption of some proposal, on a national scale, which will broaden the health benefits now available to many Americans and also affect the way in which health care is delivered (9).

President Nixon's administration is currently favoring the adoption of the concept of the "health maintenance organization" (HMO) (10). This concept is essentially patterned after the Kaiser-Permanente system operating primarily in the western portion of the United States which has demonstrated that comprehensive care, functioning under a prepayment mechanism, may be provided at a lower cost, at least for the selected populations involved (10). As of December 31, 1971, 46 grants for HMO planning and development were awarded by the Department of Health, Education, and Welfare (11). Thus, even without the passage of pending legislation, the government is becoming still further involved in the provision of health care through the mechanism of the development of the HMO.

As can be seen by the above discussion, the current health care system differs in many aspects with the provision of health care just 20 years ago. For the health administrator, the key point seems to be the movement away from person-to-person health care to person-to-organization health care. As a result, more attention has been and will

have to be paid to appropriately administrating the various agencies and organizations providing such health care. For the field of health administration, this appears to be one of its greatest challenges (3).

The Development of Careers in Health Administration

Careers in health administration have essentially paralleled the increasing complexity in the provision of health care. In the early 1900's, little need existed for health administrators since virtually all care was provided on a person-to-person basis and relatively little use was made of organizations other than hospitals. Even the use of hospitals was severely restricted and the limited services offered as well as the charitable financing structure created little need for sophisticated health administrators (12). Essentially, physicians and nurses provided the necessary institutional leadership for hospitals as well as for those few health organizations existing outside of hospitals at this point in time (13).

The first major thrust in the development of health administration came in the early 1930's and primarily involved hospitals. The increased use of hospitals, as noted above, and the increased complexities in the financing of hospital care demonstrated that using physicians and nurses in administrative capacities was inadequate to the needs of the institution (12). Where physicians and nurses retained

the overall control of hospitals, the position of business manager was frequently created in order to have someone on the administrative staff competent to handle these newly developing problems (12). In 1932, the National Committee on the Cost of Medical Care offered a significant recommendation. The Committee report stated:

> Hospitals and clinics are not only medical institutions, they are also social and business enterprises, sometimes very large ones. It is important, therefore, that they be directed by administrators who are trained for their responsibilities and can understand and integrate the various professional, economic, and social factors involved. If the Committee's recommendations regarding community medical centers and local and state coordinating boards are realized, there will be a demand for medical statesmen of high order. Definite opportunities should be provided, either in universities or in institutes of hospital administration connected with universities, for the theoretical and practical training of such administrators. The administration of hospitals and medical centers should be developed as a career which will attract high-grade students (14).

Within two years after this report, one of the Committee members, Michael M. Davis, founded the Graduate Program in Hospital Administration at the University of Chicago (15). This committee's recommendation, the creation of a graduate school for hospital administration, and the general needs of the time, essentially created the environment for the birth of health administration.

The movement to lay administrators in hospitals has been slow but steady. As will be demonstrated in the next section of this chapter, the educational output of graduate

programs was very small in the earlier years but has now reached much higher levels. However, the search for hospital administrators has included more than just program graduates but, more dependence is being placed on formal educational programs (16).

Hospitals have not proven to be the only area in the health care industry requiring a development of administrators. For example, the birth of Blue Cross and the proliferation of Blue Cross programs throughout the country opened up a large potential for health administrator roles. In addition, the increased importance of hospitals and the increased cost of running such institutions created the need for area, state, and nationwide associations to assist hospitals to explore common problems. Increased involvement of government at all levels in health care has also created many new roles in health administration. City, county, and state programs all require leadership as well as large staff groups to plan, implement, and review programs. Programs within these governmental levels vary considerably and range all the way from purely public health type measures to the actual provision of health services for large segments of a population for both indigents and non-indigents. In addition, groups of health professionals have banded together and many have hired executive directors who have been experienced administrators or have demonstrated exceptional leadership talents. In summary, there is an impressive array, both in numbers and kinds, of administrative roles

available in the health field (4,17).

From a broader view point, our country has had a continuing interest in the area of public health. In 1948, the American Medical Association defined public health as,

> The art and science of maintaining, protecting and improving the health of the people through organized community efforts. It includes those arrangements whereby the community provides medical services for special groups of persons and is concerned with the prevention or control of disease, with persons requiring hospitalization to protect the community and with the medically indigent (18).

Public health efforts were initiated and carried out under the auspices of local, state and federal government programs and had considerable impact on increasing longevity and providing a healthier population (18). By 1964, approximately 70,000 persons were employed by state and local health departments (19). This large number of personnel were responsible for a wide variety of duties related to the improvement of the health of citizens throughout the country. Many of these persons served in administrative roles and were responsible for the supervision of projects and personnel within their respective programs.

Throughout the development of these many careers, many changes have been seen in the role of the respective administrator. In hospitals, for example, the original role was essentially that of administering the internal affairs of the institution. The physician primarily determined what services should be provided and the administrative staff then worked to satisfy these needs. However, today we

find the role of the hospital administrator expanded to include much community involvement (20). With the growing dependence upon organizations for the delivery of health care, the hospital administrator takes on new significance in his own community. He is looked to as one who can recommend new patterns of care and organization for care (21). In many communities, this role is difficult to carry out because of its break with tradition. Walter McNerney has identified the person occupying this role as a "Health Care Statesman" (22). The presence of such a person in the community, who is in position to recommend, encourage and help implement change in health delivery systems, is a relatively new phenomenon. However, the noticeable trend toward the clarification of the chief administrative role in a hospital as "president" or "executive vice president" is identification of the fact that the boards of trustees have recognized this expanded role and are attempting to identify the administrator as one who is responsible for extending beyond the institution and involving himself in the total health care delivery care system of the community (23).

Another complicating factor in the community is the development of health care as a "right." There are many communities still clinging to a "dual standard" of care and they have attempted to maintain separate systems depending on the individual's ability to pay. The broadening of national health care plans, such as Medicare and Medicaid, have demonstrated in many areas that we should be working toward

one inclusive system of care involving all persons in the community rather than defending and maintaining segmented programs. Often, the presence of a hospital in a community represents the only organization providing care for the broad segment of a community's population (7).

The many changes still anticipated in the health care system will carry with them additional roles in health administration. Although we cannot identify the nature of these roles at this point in time, it is safe to assume that they will continue to broaden the overall aspect of health administration since they will involve leaders far beyond the confines of the institution's walls and attempt to incorporate the needs of the entire community, or at least large segments of the community, in a rational plan for the delivery of health care (21).

Numerous other roles in the health administrative sector have been identified and currently provide a source of employment for many individuals. Examples are consulting, teaching and research, medical group practice administration and extended care facility administration (19).

Some of the more recent federal programs have opened up additional opportunities in health administration. The Comprehensive Health Planning Act (P.L. 89-749) has placed new emphasis on the important role of planning in a community. The role of planning in a community has been seen as a very important function and the federal government has devoted itself to the development of this vital role in the

health care program of communities (24). Another federal effort, Regional Medical Programs (P.L. 89-239), has provided significant opportunities for health administrators. In this program, efforts have been devoted to shortening the time between the discovery of new treatment and diagnostic techniques in the area of heart disease, cancer and stroke and the actual implementation of these new techniques in the field. Significant leadership has been needed in this area because of the involvement of so many diverse groups over large geographic areas. These programs offer significant potential for the expansion of health services and improvement of health services throughout the nation (25).

Education for Careers in Health Administration

The first program in health administration to be established and to admit students was at Marquette University (26). In 1924, a college of Hospital Administration was created at Marquette. This program continued until 1928 having awarded only two degrees. No new academic ventures in health administration were attempted until Michael M. Davis initiated a graduate program at the University of Chicago in 1934 (17). It is interesting that Mr. Davis was a member of the Committee on Cost of Medical Care that recommended, in 1932, that academic programs be established to train administrators for hospitals and clinics. Another long period elapsed before the second graduate program was

established in 1943 at Northwestern University (27). Beginning in 1945, new programs began to appear on the academic scene with some degree of regularity and in 1971, 33 graduate programs held either full or associate membership in the Association of University Programs in Hospital Administration (AUPHA) in North America (28). These 33 programs, along with several discontinued programs, have already graduated 6,839 students, 613 of these receiving their degrees in 1970. Current enrollment in graduate programs indicates that about 800 graduates per year can be expected from these programs by 1972. It was known, in 1971, that several additional universities were planning graduate programs in health and hospital administration and that several universities and/or colleges had already established or were planning undergraduate programs in the field (29).

As early as 1910, degrees in public health were offered by universities in the United States. While many pursuing such degrees were not candidates for administrative positions, many persons in or seeking public health administrative roles sought such educational programs (18). In the academic year 1968-69, 1,381 master's degrees in public health were awarded (19). No estimate is available of the number of those graduates who are or will be seeking administrative positions. If only 200 such graduates assume administrative positions, when added to the anticipated output of graduate programs in health administration, more than 1,000 master's level graduates will be seeking health

administrative positions each year by 1972.

A very interesting phenomenon can be observed in reviewing the history of graduate programs in health and hospital administration. This phenomenon relates to the broadening of the educational objectives of the programs from the education of potential hospital administrators to the education of health administrators (30). This change, in one program (Iowa) reflected "the premise that the interest of its graduates should embrace all elements of the health care industry and not just the hospital" (31). In 1959, all but one of the 17 existing programs used the phrase, "hospital administration" with no broader term in their title and/or offered the master's in hospital administration degree (27). Ten years later, in 1969, nine of the 28-AUPHA member programs included the phrase "health administration" or some similar phrase, in place of, or in addition to, "hospital administration" (32).

One of the interesting debates in the field has concerned the appropriate academic setting for graduate programs. In 1948, the Joint Commission on Education issued a report entitled The College Curriculum in Hospital Administration (Prall Report) (33). This report stated that schools of public health were the appropriate academic setting for graduate programs. In contrast to this, in 1954, the report of the Commission on University Education in Hospital Administration entitled University Education for Administration in Hospitals (Olsen Report) recommended

that such graduate programs be founded in business schools (4). Neither of these recommendations was followed in full and, as a result, the 33 programs affiliated with the AUPHA are found in the following academic settings (28):

In schools of public health	11
In graduate schools of business and/or public administration	8
In graduate schools	4
In schools of medicine	3
Joint business and health-related professions	2
Joint medicine and business	1
Joint medicine and graduate college	1
In school of allied health professions	1
Joint medicine, business and public administration	1
In school of community and allied health resources	1
Total	33

Though multiple settings seem to exist, the field of health and hospital administration appears to accept master's degrees from any of the various settings as the essential equivalent and graduates from all programs are usually classified under the general heading of "program graduates' (18).

The broadening of educational objectives seems to have occurred after the recognition that many graduates were accepting positions in the health field outside of hospital administration. For example, in 1954, it was reported in

the Olsen Report that,

> As of January 1, 1953, more than 76 per cent of the persons completing graduate work in programs in hospital administration since their inception in 1934 have remained in hospital work. The remaining 24 per cent have, for the most part, removed themselves to administrative endeavors in peripheral fields of activity (4).

The Olsen Report further identified the peripheral fields as:

Voluntary agencies
Governmental, non-federal agencies
Federal agencies
Military
Consultation and research
University programs in hospital administration
Clinics
Blood banks
Prepayment plans
Hospital supply business
Own business
Foreign

Summarizing the occupational fields of graduates of university programs in hospital administration, the Olsen Report revealed the following employment pattern for 842 graduates:

Hospital administration	76.1%
Peripheral fields	16.1%
Miscellaneous	7.7%
Total	99.9%

(Total does not equal 100% due to rounding error)

A study published eight years later, 1962, showed the following employment pattern for 3,120 graduates (19):

Administrator	70.9%
Allied health fields	21.5%
Miscellaneous	7.6%
Total	100.0%

As part of this author's research project, in 1971, the

employment pattern of 3,165 graduates was studied revealing the following:

Hospital administration	70.4%
Non-hospital health fields employment	16.1%
Other or unknown employment	13.5%
Total	100.0%

Unfortunately, direct comparison of the results of each study cannot be made because of methodological differences among the studies. However, in each study, the large number of graduates (about one out of five) employed in non-hospital but health-related fields, underlines that program graduates are entering health related fields outside hospital administration.

In summary, education of health administrators has changed greatly over the years. Programs have expanded curriculums to prepare students for administrative positions in more than just hospitals and surveys have demonstrated that their graduates are now serving in a wide variety of administrative roles outside hospitals. Though these changes have been widely discussed, it has been noted that,

> The last major study of hospital administration education in the U.S. and Canada was the Olsen Report in 1954. As I reported to you last year, there has been growing interest in a new and more thorough examination of the entire administration education field (29).

This statement, by the executive director of the AUPHA, indicates that much more must be known about the educational needs for health administration.

Study Objectives

While much attention has been paid to the role of program graduates in hospitals, much less attention has been paid to the role of program graduates in organizations outside of hospitals. Also, while the studies mentioned above indicate that approximately 20 per cent of program graduates are in health organizations other than hospitals, it is not known whether such graduates are occupying the top leadership position in those organizations. If the program graduates are not occupying these positions, what is the education and/or experience background of those persons occupying the top leadership positions outside hospitals? Examination of directories of health-related organizations and agencies had led this author to believe that the vast majority of top leadership positions are not occupied by program graduates and that most governmental agencies and programs utilize physicians in these positions. Thus, a part of this study will be devoted to examining the career patterns of those persons occupying the top leadership positions within and outside of hospitals. This study should provide information which will aid in the determination of potential curriculum changes in graduate education as related to the basic objectives of graduate programs. The hypotheses of Group I are directed toward these questions.

A second major area of study will be that of the determination of impact of graduate programs on hospital

administration (Group II hypotheses). This subject has received attention in the past but it is felt that available information is outdated and interesting comparisons can be made with the older data. For example, in 1959, Richard L. Johnson stated, "By 1970, with the exception of small rural hospitals, the curve indicates that it may be virtually impossible for non-course persons to enter the field of hospital administration" (18). The question to be raised is, "To what extent is this true?" One national hospital executive search consultant in personal discussion with this author stated that many boards of trustees are considering non-course persons for employment in top hospital administrative positions in large hospitals. This is especailly true when the hospital involved has a specific problem (e.g., financial difficulty) and a specific skill (e.g., financial management) is deemed desirable (34). In fact, this consultant frequently includes a non-course person in the final group of recommended applicants for a position if he has been able to identify such a specific need. It is not the purpose of this study to contrast the hospital employment patterns in rural and urban areas. However, it is proposed that hospital employment patterns be studied in relationship to bed size, age of the administrator and educational background of the administrator.

The third major segment of this study (Group III hypotheses) will be devoted to an analysis of the impact of leveraging on career patterns in health administration.

Leveraging is a term used to mean the act of changing jobs from one corporation (specific employer entity) to another. A study in 1965 indicated that the median tenure in hospital administrative positions for program graduates was 3.5 years while non-program graduates had a median tenure of 7.5 years (35). Thus, it can be readily seen that hospital administrators, as a group, experience many job and employer changes during their careers. In non-health related employment areas, this job changing pattern has been extensively studied, particularly among the large corporations of the nation, with the conclusion that, "there seems to be a shift in prime loyalties from the firm to the career" (36). Jennings, an active researcher in this area, has devised a new discipline that he calls "mobilography" as a means of studying the mobility patterns of managers and executives (37). His examination of the trend toward increased mobility has led him to the conclusion that, "... by 1970 every (corporation) president will have leveraged at least once, and 60 per cent will have leveraged twice." It is proposed that this conclusion be tested among those holding the top administrative position in hospitals. Associated with this aspect of leveraging is the question of an administrator returning to employment status with a former employer. If career versus employer loyalty is an issue, will a former employer invite an administrator back to employment? Thus, it is proposed to investigate this question.

Returning to the tenure issue, it is proposed that this

be studied by comparing the tenure of program graduates and non-graduates to determine if the 1965 study results, stated above, still hold.

The last hypothesis in this group is designed to investigate the mobility, or lack thereof, of administrators among various employment categories. While it is noted that tenure is short in hospital administrative positions, does this mean that administrators are simply moving from one hospital to another or are they moving among and back and forth among the several health related employment opportunities? No information has been found on this subject by this author to date. Thus, it appears that this question has received little or no attention. Research in this area should identify the opportunity, or lack of opportunity, as indicated by past experience, to move freely among the several health related employment opportunities. This area of study may also reveal the success, or lack thereof, of graduate programs in preparing their graduates for moving freely among the various employment opportunities.

The need for effective health administration in our nation's health organizations cannot be over-emphasized. The large segment of our gross national product that is devoted to health care itself demands a high priority for such study. While this study does not have the broad scope of the Olsen Report, it does address itself to many of the issues included in that report and could provide information currently lacking in the health administrative field and

provide base line information for other studies that may be initiated in the future. Thus, this study would be a partial response to the need expressed by the executive director of the AUPHA as mentioned above.

Hypotheses

As stated above, the hypotheses have been combined to form three groups, each group focusing upon one basic topic.

Group I - Educational backgrounds of health administrators outside hospitals

1) Graduates of master's programs in health administration occupy 20 per cent or more of the health leadership positions outside hospitals.

2) Physicians without master's degrees in health administration fill the minority of top administrative positions in federal and state government agencies and Regional Medical Programs.

Group II - Impact of graduate programs in health administration on hospital administration

1) The larger the hospital, the more likely the administrator possesses a master's degree in health administration.

2) There is no difference in the average age of hospital administrators with master's degrees in health administration as compared to hospital administrators without such a degree.

3) Each year, starting in 1960, the percentage of persons with master's degrees in health administration appointed to the top administrative positions in hospitals has not changed.

Group III - Impact of leveraging

1) Leveraging, when it occurs, will usually take place within a given category of the employment (e.g., among similar employers), rather than among various categories (mobility is primarily limited to within a specific category of employment).

2) All hospital administrators have leveraged at least once and at least 60 per cent have leveraged two or more times from previous administrative positions in hospitals.

3) Less than 1 per cent of the hospital administrators surveyed leveraged back into a hospital with which they were previously associated in an administrative position.

4) There is no difference in the tenure of those in hospital administration positions between those administrators possessing master's degrees in health administration as compared to those without such a degree.

CHAPTER II

METHODOLOGY

Sample Selection

The health administrators selected for this study fell into the following employment categories:

a) Hospital administrators

b) Blue Cross chief executives

c) Comprehensive health planning area-wide directors

d) Regional Medical Program directors and administrative officers

e) State health department directors

f) Other state agency directors

g) U. S. Department of Health, Education and Welfare health-related executives

h) Hospital association directors

i) Miscellaneous health organization chief executives

j) Medical group practice administrators

With two exceptions, the above list was derived from the August 1, 1971, Guide Issue of the American Hospital Association (38). The Guide Issue was utilized as the basis of category selection because of its coverage of a large number and wide variety of organizations and agencies directly involved in the health of the nation. The inclusion

of Regional Medical Program administrators and medical group practice administrators was based upon the growing influence of both of these groups upon the delivery of health care in this country. Regional Medical Program activities now span the entire country and involve the efforts of a wide variety of health personnel. This federal program is aimed at improving the health care of persons suffering from heart disease, cancer, and stroke. Also, the federal government has promoted the group practice of medicine (39) and encouraged the establishment of health maintenance organizations (HMO's) as part of an effort to provide more comprehensive health care for the population of the country. Thus, administrators in both types of organizations should serve in increasingly important roles.

Compared with previous research of this author which identified the nature of the employment of graduates of selected AUPHA member programs, the following health-related employment categories were not included in this study:

a) Graduate program in health administration faculty

b) Local (non-federal and non-state) officials not involved in hospital administration

c) Consultants

d) Educational administrators

e) Other academic/research personnel

f) Extended care facility administrators

The exclusion of the above six groups represents less than 7.5 per cent of all health-related employed graduates of the selected AUPHA member programs. Specifically, the

only persons in these groups that could be identified as administering health service organizations would be found in the local government agencies and in extended care facility administration. Together, these two groups represented less than 1.4 per cent of the total.

The determination of sample sizes and the selection of each sample were accomplished as follows:

a) Hospital administrators: 7,280 hospitals were listed in the Guide Issue. It was determined that a 10 per cent sample of this group would be chosen. Considering the number of hospitals, generalizations could be made for this group through the use of an appropriately selected 10 per cent sample. The 728 hospitals were selected by random sampling after numbering the list of hospitals in the Guide Issue from one to 7,280. The hospitals appeared in alphabetical order by city or town within an alphabetical ordering of the states. Selection of specific hospitals was accomplished by taking consecutive numbers from a random sample table until 728 hospitals were identified (40). The names of the hospital administrators of each of the hospitals so selected by the random process were then checked to determine those affiliated with American College of Hospital Administrators. Biographical information for such persons was obtained from the Directory of the American College of Hospital

Administrators (41). For the remainder, questionnaires were sent to obtain the necessary information.

b) Blue Cross chief executives: Questionnaires were sent to all chief executives of Blue Cross Plans. At the time of the study, the total number was 74.

c) Comprehensive health planning area-wide directors: Questionnaires were sent to all comprehensive health planning area-wide directors. At the time of the study, such persons numbered 173.

d) Regional Medical Program directors and administrative officers: Questionnaires were sent to all Regional Medical Programs. The Directory of State, Territorial, and Regional Health Authorities, 1970 (42) was utilized to obtain mailing information. Fifty-four specific agencies were listed. Questionnaires were sent to all agency directors and to the chief administrative officer reporting to each director.

e) State health department directors: Questionnaires were sent to all identified state health department directors who numbered 47 at the time of the study.

f) Other state health agency directors: Questionnaires were sent to all other state health agency directors identified in the Guide Issue. At the time of the study, these numbered 312.

g) U. S. Department of Health, Education and Welfare health-related executives: In order to limit the study to appropriate executives in this category, the researcher contacted the Interim Deputy Administrator for Prevention and Consumer Services of the United States Public Health Service. This officer was known to the researcher and after discussing the purpose and scope of the project, he was able to identify those federal executives who filled positions essentially comparable with those being studied in other agencies and organizations. The list he provided included 50 such officials. Questionnaires were sent to all.

h) Hospital association directors: Questionnaires were sent to all hospital association directors listed in the Guide Issue involved in both statewide and metropolitan associations. Seventy-nine such persons were identified at the time of the study.

i) Miscellaneous health organizations: From the Guide Issue's list of international, national, and regional associations, 26 persons were identified as chief executive officers of associations involved with health administration. Questionnaires were sent to all.

j) Medical group practice administrators: From the International Directory of the Medical Group

Management Association (43), listing 790 members, a 10 per cent sample was selected in the same manner as for hospital administrators as noted above. This resulted in sending 79 questionnaires.

The above categories included the agencies and organizations employing more than 92 per cent of all graduates of selected AUPHA member programs. Also, it included all health delivery related organizations listed in the Guide Issue and excluded only those directly involved with a specific health discipline or licensure program. With the exception of hospital administrators and medical group practice administrators, 100 per cent of all persons listed in such health administrative roles were sent questionnaires. In the case of hospital administrators and medical group practice administrators, a 10 per cent sample of each group was selected for study.

Data Collection

The data used for the study were derived from published biographical listings in the Directory of the American College of Hospital Administrators or from returned questionnaires providing the appropriate biographical information. Specific information sought for each individual was as follows:

a) Year of birth

b) Education (for each degree earned post-high school)

1) Degree

2) Institution awarding degree

3) Date degree awarded

c) Employment (for each employer and/or position change)

1) Title

2) Organization type

3) Dates of employment

4) Bed size (if hospital - 1960 to date)

d) Status in American College of Hospital Administrators (only for those identified as hospital administrators.)

Seeking only the above information allowed for the development of a relatively simple questionnaire and cover letter. Simplification of the questionnaire was desirable in order to encourage response from those sent the questionnaire. The envelopes were addressed to the individual filling the specific role and the questionnaire itself included the person's name written in the appropriate space along with a code number to simplify the recording of information. Also included in the mailing was a stamped self-addressed return envelope. Thus, each questionnaire was personalized for the individual intended to receive it in order to assure maximum response.

Data Analysis Procedure

The data analysis will be discussed in the same order as the hypotheses were previously presented. In all cases,

statistical significance at the level of 5 per cent or less was required to accept or reject hypotheses.

Group I Hypotheses: Educational backgrounds of health administrators outside hospitals.

This group of two hypotheses was intended to identify the proportions of health administrators in specific groups who held master's degrees in health administration. Such information would test the impact that such graduate programs have had on the field of health administration outside hospitals. The determination of the number of persons with and without master's degrees in health administration in the selected categories was the method by which the hypotheses were tested.

Hypothesis I-1

Graduates of master's programs in health administration occupy 20 per cent or more of the health leadership positions outside hospitals.

To test this hypothesis, the percentage of persons occupying the top leadership positions in all groups studied, with the exception of hospital administrators, was determined and from this, the percentage of those with master's degrees in health administration was calculated and compared with that stated in the hypothesis.

Hypothesis I-2

Physicians without master's degrees in health administration fill the minority of top administrative positions in federal and state government agencies and Regional Medical Programs.

Four categories (Regional Medical Program directors, state health directors, other state health agency directors

and U. S. Department of Health, Education and Welfare health-related executives) were analyzed to determine the number of physicians without master's degrees in health administration who occupy the top administrative roles in each group. Thus, by determining the total percentage of such physicians in the total sample, this hypothesis was tested.

Group II Hypotheses: Impact of graduate programs in health administration on hospital administration.

If graduate programs in health and hospital administration had established themselves as the primary source for hospital administrators, it was felt that their influence would be felt in several specific areas as noted by the following hypotheses:

Hypothesis II-1

The larger the hospital, the more likely the administrator possesses a master's degree in health administration.

To test this hypothesis, hospitals were arrayed by bed-size from smallest to largest in specific groupings and the percentage of administrators with master's degrees in health administration in each group was calculated. Thus, it was determined whether the percentage of administrators with master's degrees in health administration increased along with the increased size of hospitals.

Hypothesis II-2

There is no difference in the average age of hospital administrators with master's degrees in health administration as compared to hospital administrators without such a degree.

This hypothesis was tested by the calculation of the mean age of hospital administrators with and without a master's degree in health administration with the differences of the two means tested to determine if a statistically significant difference existed.

Hypothesis II-3

Each year, starting in 1960, the percentage of persons with master's degrees in health administration appointed to the top administrative positions in hospitals has not changed.

The testing of this hypothesis was accomplished by recording, for each appointment to the position of hospital administrator noted in this study, the year of the appointment and the educational status of the appointee. From this, the percentage of persons with a master's degree in health administration appointed by year since 1960 was calculated. By a testing of the significance of the difference of these percentages, it was possible to determine whether the proportion of persons with master's degrees in health administration appointed to the top hospital administrative positions has increased, decreased, or showed stability during the ten-year period.

Group III Hypotheses: Impact of leveraging

This group of hypotheses was intended to explore the mobility, or lack thereof, of administrators among various employment categories.

Hypothesis III-1

Leveraging, when it occurs, will usually take place within a given category of employment (e.g., among

similar employers), rather than among various categories (mobility is primarily limited to within a specific category of employment).

To test this hypothesis, the careers of the health administrators in each of the ten employment categories were analyzed. This analysis involved a determination of the categories of employment before and after each employment change. Thus, the ability of health administrators to move in and out of and among the various health administration fields was examined. No statistical testing was carried out for this hypothesis. The analysis identified frequency in which changes were made to and from the various categories of health-related and non-health-related employment.

It was originally intended that the number of employment changes within each category be determined. Unfortunately, the data, both from the Directory of the American College of Hospital Administrators and from the returned questionnaires were not complete enough to accomplish this analysis. However, it was possible to determine the various categories of employment with which each person was associated.

Hypothesis III-2

All hospital administrators have leveraged at least once and at least 60 per cent have leveraged two or more times from previous administrative positions in hospitals.

This hypothesis was based upon an assertion made by Professor Jennings in his book as mentioned above (37). Although Professor Jennings did not specify the health field in his research, it was felt that the extension of this

assertion to the health field would assist in the determination of career versus employer loyalty. The hypothesis was tested by determining the percentage of health administrators who had not leveraged, those who leveraged once, and those who leveraged more than once.

Hypothesis III-3

Less than 1 per cent of the hospital administrators surveyed leveraged back into a hospital with which they were previously associated in an administrative position.

If, in fact, leveraging from one health organization to another were to leave doubts in the former organization about the loyalty of the health administrator, few health administrators would return to their former employer. According to Freedgood, "Top flight executives . . . no longer feel a prime loyalty to the corporation. There is a new set of values at work: loyalty to a discipline or a profession and to a personal career" (44). Thus, once a health administrator left an employer, little chance should exist of his return to that employer at a later date. This hypothesis was tested by determining the percentage of hospital administrators who returned to a hospital having formerly served that hospital in an administrative position. The resulting percentage was then compared with the percentage as stated in the hypothesis.

Hypothesis III-4

There is no difference in the tenure of those in hospital administration positions between those administrators possessing master's degrees in health administration as compared to those without such a degree.

It has been previously asserted that administrators without master's degrees in health administration demonstrate longer tenures than those with master's degree in health administration (35). Whether or not such differences exist was studied by comparing the tenure in currently held administrative positions and positions held prior to the current position by persons both with and without master's degrees in health administration. The differences in the means so calculated were tested for statistical significance.

CHAPTER III

RESEARCH RESULTS

Introduction

As described earlier, the data utilized in this study were obtained from biographical listings appearing in the Directory of the American College of Hospital Administrators or from returned questionnaires mailed directly to identified health administrators (Table 1 summarizes the response to mailed questionnaires).

The analysis of data involving hospital administrators was complicated because two sources of information were utilized. It was found that 275 of the 728 selected hospital administrators had biographical listings in the Directory of the American College of Hospital Administrators. Of these 275, biographical listings for 259 administrators were found to contain sufficient information to fulfill the requirements of this study. This represented 94.1 per cent of the selected sample of 275. The remaining hospital administrators, 453, were sent questionnaires for completion, and 171 usable replies were returned. This represented 37.7 per cent of the 453 persons in the mailing sample. Because of the wide variation in availability of usable

TABLE 1

Response to Mailed Questionnaires

Employment Category	Number Mailed	Questionnaires Returned and Usable	Percentage Response
a. Hospital Administrator			
Non-ACHA-Affiliated	453	171	37.7
ACHA-Affiliated	275[a]	259	94.1
b. Blue Cross Chief Executives	74	36	48.5
c. Comprehensive Health Planning Area-Wide Directors	173	99	57.2
d. Regional Medical Programs			
Directors	54	32	59.3
Administrative Officers	54	34	63.0
e. State Health Dept. Directors	47	34	72.4
f. Other State Agency Directors	312	185	59.3
g. U. S. Dept. of HEW Health-Related Executives	50	35	70.0
h. Hospital Association Directors	79	46	58.2

TABLE 1 continued

Employment Category	Number Mailed	Questionnaires Returned and Usable	Percentage Response
i. Misc. Health Organization Directors	26	14	53.8
j. Medical Group Practice Administrators	79	39	49.4

[a]Information for this group was obtained from the Directory of the American College of Hospital Administrators

responses between the two groups, it was decided to treat each group separately in the data analysis for those hypotheses involving hospital administrators. With two exceptions, these being hypotheses II-1 and II-3, this separate analysis was carried out. Specific descriptions of the analyses follow under each hypothesis.

The relatively low return of questionnaires by hospital administrators not affiliated with the American College of Hospital Administrators (37.7 per cent response) necessitated statistically testing certain characteristics of the total invited sample. This was done to determine if the returned sample was similar in the selected characteristics to the invited sample. The characteristics so compared were bed size, control, service and length of stay. Tables 2 through 5 describe the characteristics of each group and indicate the calculated chi square. The results of these statistical tests revealed that on the characteristics of control, service, and length of stay, the returned sample and the invited sample did not differ significantly. However, with respect to bed size, a statistically significant difference was observed. Thus, in the analysis of hypothesis II-1, each bed size group was appropriately weighted to equate the returned sample with the invited sample since this sample was combined with that of the affiliates of the American College of Hospital Administrators.

In the medical group practice administrator employment category, the invited sample was 10 per cent of all persons

TABLE 2

Comparison of Invited and Returned Sample Questionnaires Mailed to Non-ACHA-Affiliated Administrators

Characteristic Tested - Bed Size

Bed Size Range	No. Invited	No. Returned	Percentage Returned
0 - 50	198	70	35.4
51 - 100	105	30	28.6
101 - 150	41	18	43.9
151 - 200	25	8	32.0
201 - 300	24	9	37.5
301 - 400	22	9	40.9
401 - 1,000	20	14	70.0
1,000 +	18	13	72.2
TOTALS	453	171	

Chi Square = 23.3

Degrees of Freedom = 7

$P < .01$

Difference is statistically significant at the desired level

TABLE 3

Comparison of Invited and Returned Sample Questionnaires Mailed to Non-ACHA-Affiliated Administrators

Characteristic Tested - Control

Type	No. Invited	No. Returned	Percentage Returned
Government, Non-Federal	168	65	38.7
Non-Government Not-for-Profit	164	69	42.1
For-Profit	73	20	27.4
Governmental, Federal	27	12	44.4
Osteopathic	21	5	23.8
TOTALS	453	171	

Chi Square = 6.94

Degrees of Freedom = 4

P >.10

Difference is not statistically significant at the desired level

TABLE 4

Comparison of Invited and Returned Sample Questionnaires Mailed to Non-ACHA-Affiliated Administrators

Characteristic Tested - Service

Type	No. Invited	No. Returned	Percentage Returned
General	378	139	36.8
Psychiatric	28	14	50.0
Other	47	18	38.3
TOTALS	453	171	

Chi Square = 1.94

Degrees of Freedom = 2

$P > .10$

Difference is not statistically significant at the desired level

TABLE 5

Comparison of Invited and Returned Sample Questionnaires Mailed to Non-ACHA-Affiliated Administrators

Characteristic Tested - Length of Stay

Type	No. Invited	No. Returned	Percentage Returned
Short	404	146	36.1
Long	49	25	51.0
TOTALS	453	171	

Chi Square = 3.5

Degrees of Freedom = 1

$P > .05$

Difference is not statistically significant at the desired level

known to be so employed. In all other categories the invited sample was 100 per cent of all persons known to be employed in the respective categories.

The Results of the Group I Hypotheses

The group I hypotheses were intended to investigate the educational backgrounds of health administrators outside hospitals. Particularly, they were intended to explore the frequency with which such positions were occupied by persons with master's degrees in health administration.

Hypothesis I-1

> Graduates of master's programs in health administration occupy 20 per cent or more of the health leadership positions outside hospitals.

The percentage calculated to test this hypothesis was weighted on the basis of the size of the original population. The result of this calculation (Table 6) revealed that the 95 per cent confidence interval for the percentage of persons with a master's degree in health administration and occupying leadership positions in health administration outside hospitals, was between 5.2 per cent and 10.7 per cent. When medical group practice administrators were eliminated from the calculation, the 95 per cent confidence interval was 10.3 per cent to 15.5 per cent. The calculated weighted percentage for all groups combined was 8.0 per cent and for all groups except medical group practice administrators, it was 12.9 per cent. The difference from the hypothesized

TABLE 6

HYPOTHESIS I-1

Health Administrators without Master's Degrees in Health Administration

Employment Category	No. in Sample	No. MHA's	% MHA's
Blue Cross Chief Executives	36	1	
Comprehensive Health Planning Area-Wide Directors	99	23	
Regional Medical Programs			
Directors	32	2	
Administrative Officers	34	6	
State Health Dept. Directors	34	0	
Other State Agency Directors	185	5	
U. S. Dept. of HEW Health-Related Executives	35	1	
Hospital Association Directors	46	22	

TABLE 6 continued

Employment Category	No. in Sample	No. MHA's	% MHA's
Misc. Health Organization Directors	14	5	
Medical Group Practice Administrators	39	1	___
TOTALS	554	66	8.0[a]
TOTALS without Medical Group Practice Administrators	515	65	12.9[b]

[a]Difference from hypothesized 20.0% is statistically significant at the desired level ($P < .001$)

[b]Difference from hypothesized 20.0% is statistically significant at the desired level ($P < .001$)

percentage of 20 per cent was statistically significant at the 0.1 per cent level for both percentages.

The result of these calculations reject the hypothesis as stated.

Hypothesis I-2

> Physicians without master's degrees in health administration fill the minority of top administrative positions in federal and state government agencies and Regional Medical Programs.

Table 7 reports the result of the analysis of this hypothesis. The calculated weighted percentage of persons with a medical degree, but without a master's degree in health administration, was 57.4 per cent. The difference between this weighted percentage and the hypothesized value of 50 per cent or less was statistically significant at the 1 per cent level. The 95 per cent confidence interval ranged from 52.2 per cent to 62.7 per cent.

The result of these calculations reject the hypothesis as stated.

The Results of the Group II Hypotheses

The group II hypotheses were intended to investigate the impact of graduate programs in health administration on hospital administration.

Hypothesis II-1

> The larger the hospital, the more likely the administrator possesses a master's degree in health administration.

TABLE 7

HYPOTHESIS I-2

Physicians without Master's Degrees in Health Administration

Employment Category	No. in Sample	M.D.'s without MHA	%
Regional Medical Programs Directors	32	29	
State Health Dept. Directors	34	34	
Other State Agency Directors	185	83	
U. S. Dept. of HEW Health-Related Executives	35	21	
TOTALS	286	167	57.4[a]

[a]Difference from hypothesized 50.0% is statistically significant at the desired level ($P < .01$)

The result of this analysis will be found in Table 8. No attempt was made at testing the significance of the difference of the proportion of persons with master's degrees in health administration among the various hospital groups based on bed size. Table 8 demonstrates that there is not a continuously increasing relationship between bed size and the possession of a master's degree in health administration by the administrator.

This hypothesis was rejected because the percentage of administrators with master's degrees in health administration did not consistently increase with increasing hospital size throughout the range of bed size groups.

Hypothesis II-2

> There is no difference in the average age of hospital administrators with master's degrees in health administration as compared to hospital administrators without such a degree.

To make this analysis, the calculations were completed independently for those administrators affiliated with the American College of Hospital Administrators and for those who were not so affiliated. Table 9 reports the results including the tests of significance. It was determined that among those who were not affiliated with the American College of Hospital Administrators, there was not a statistically significant difference in ages between those with and without a master's degree in health administration. However, for those who were affiliated with the American College of Hospital Administrators, the difference in ages

TABLE 8

HYPOTHESIS II-1

Proportion of Hospital Administrators
Possessing a Master's Degree
in Health Administration

Hospital Bed Size	Percentage of Administrators with MHA	Standard Deviation
0 - 50	4.0	2.0
51 - 100	25.8	6.7
101 - 150	43.1	7.0
151 - 200	45.0	7.6
201 - 300	50.0	7.1
301 - 400	46.7	8.0
401 - 1,000	38.1	6.0
1,000 +	16.9	6.7

NOTE: Non-ACHA-affiliated administrators and ACHA-affiliated administrators were combined in the above chart. In addition, the Non-ACHA sample was adjusted to reflect the distribution, by bed size, of hospitals in the invited sample.

TABLE 9

HYPOTHESIS II-2

Years of Age Comparisons - Hospital Administrators

Non-ACHA-Affiliates

Non-MHA			MHA		
Sample Size	Mean Age	Standard Deviation	Sample Size	Mean Age	Standard Deviation
138	47.4	10.3	25	44.6	9.1

t test = -1.26 ($P > .05$)

Difference in ages is not statistically significant at the desired level

ACHA-Affiliates

Non-MHA			MHA		
Sample Size	Mean Age	Standard Deviation	Sample Size	Mean Age	Standard Deviation
131	52.8	8.9	121	44.4	7.1

t test = -8.19 ($P < .001$)

Difference in ages is statistically significant at the desired level

was statistically significant at the 0.1 per cent level.

The result of these calculations reveals that the hypothesis was upheld with respect to those administrators who were not affiliates of the American College of Hospital Administrators but the hypothesis failed with respect to those administrators who were affiliates of the American College of Hospital Administrators. However, in both instances, administrators with master's degrees in health administration were found to have a lower mean age.

Hypothesis II-3

> Each year, starting in 1960, the percentage of persons with master's degrees in health administration appointed to the top administrative positions in hospitals has not changed.

The result of these calculations will be found in Table 10. The test of the differences among the years showed that there was no statistically significant difference in the rate of those persons with master's degrees in hospital administration appointed to hospital administrator positions during the years studied. Thus, no consistent change in this proportion, either increasing or decreasing, was demonstrated.

The Results of the Group III Hypotheses

The group III hypotheses were intended to explore the impact of leveraging on the careers of health administrators.

TABLE 10

HYPOTHESIS II-3

Appointments to Position of Hospital Administrator

Year	MHA	Non-MHA	Total	Percentage MHA	Standard Deviation
1970	20	37	57	35.1	6.3
1969	19	35	54	35.2	6.5
1968	17	19	36	47.2	8.3
1967	24	32	56	42.9	6.6
1966	13	16	29	44.8	9.2
1965	16	26	42	38.1	7.5
1964	13	13	26	50.0	9.8
1963	8	20	28	28.6	8.5
1962	8	8	16	50.0	12.5
1961	8	17	25	32.0	9.3
1960	11	14	25	44.0	9.9

Chi Square = 6.52

Degrees of Freedom = 10

$P > .05$

Differences among the years are not statistically significant at the desired level

Hypothesis III-1

> Leveraging, when it occurs, will usually take place within a given category of employment (e.g., among similar employers), rather than among various categories (mobility is primarily limited to within a specific category of employment).

The result of this analysis will be found in Tables 11 and 12. Clearly, only three categories were composed of persons, the majority of which, had held employment in more than one of the health employment categories studied. These three categories were: comprehensive health planning area-wide directors, hospital association directors, and miscellaneous health organization chief executives. All four subgroups within the hospital administrator employment category demonstrated less than 10 per cent of the subgroup with employment in more than one category. All other employment groups studied fell between 10 per cent and 41.1 per cent.

In comparing the above results with the hypothesis, a mixed conclusion is obtained. For three employment categories as stated above, the majority of the administrators leveraged among at least two of the health employment categories studied. In the seven other categories, leveraging, in the majority of cases, was limited to the health employment category in which the person was currently employed.

Hypothesis III-2

> All hospital administrators have leveraged at least once and at least 60 per cent have leveraged two or

TABLE 11

HYPOTHESIS III-1

Leveraging Among Employment Categories

Employment Change Classifications	Employment Categories Studied[a]													
	a.1.	a.2.	a.3.	a.4.	b	c	d.1.	d.2.	e	f	g	h	i	j
One position in current employment category	0	0	10	10	0	0	0	0	0	11	7	1	0	2
More than one position in current employment catetory	55	10	89	70	3	1	0	0	0	19	0	0	0	0
One change from category k to current employment category	17	4	3	2	0	9	20	5	2	71	16	3	1	2
One change from category l to current employment category	58	9	8	35	22	26	0	11	0	37	5	8	3	17

TABLE 11 continued

Employment Change Classifications	Employment Categories Studied[a]													
	a.1.	a.2.	a.3.	a.4.	b	c	d.1.	d.2.	e	f	g	h	i	j
More than one change to and from category k and current employment category	2	1	3	4	0	0	1	0	1	7	1	0	0	0
More than one change to and from category l and current employment category	1	0	2	2	0	0	0	0	0	2	0	0	0	0
More than one change to and from a combination of categories k and l and current employment category	4	0	2	1	2	5	0	4	0	5	2	1	0	1
Employment only in categories e and f (public health agencies)	0	0	0	0	0	0	0	0	6	0	0	0	0	0

TABLE 11 continued

Employment Change Classifications	Employment Categories Studied[a]													
	a.1.	a.2.	a.3.	a.4.	b	c	d.1.	d.2.	e	f	g	h	i	j
Employment in a combination of combination of categories e, f, k, and l	0	0	0	0	0	0	0	0	17	0	0	0	0	0
No information	2	1	0	0	2	2	0	0	0	0	0	1	0	1
Employment in more than one of the ten study categories (a through j)	6	1	9	9	7	56	11	14	8	33	4	32	10	16
TOTALS	145	26	126	133	36	89	32	34	34	185	35	46	14	39

[a]Employment Categories

a. Hospital Administrators
   1. Non-ACHA-Affiliate and Non-MHA
   2. Non-ACHA-Affiliate with MHA
   3. ACHA-Affiliate and Non-MHA
   4. ACHA-Affiliate with MHA
b. Blue Cross Chief Executives
c. Comprehensive Health Planning Area-Wide Directors
d. Regional Medical Programs
   1. Directors
   2. Administrative Officers
e. State Health Department Directors
f. Other State Agency Directors
g. U. S. Department of HEW Health-Related Executives
h. Hospital Association Directors
i. Miscellaneous Health Organization Directors
j. Medical Group Practice Administrators
k. Health-Related Employment but not a through j above
l. Non-Health-Related Employment

TABLE 12

HYPOTHESIS III-1

Persons Employed in More Than One Study Category

Description	Employment Categories Studied[a] a.1.	a.2.	a.3.	a.4.	b
Persons employed in category currently	145	26	126	133	36
Persons employed in two study categories	6	0	9	9	6
Percentage	4.1	0	7.1	6.8	16.7
Persons employed in three or more study categories	0	1	0	0	1
Percentage	0	3.8	0	0	2.8
Accumulated percentage of persons employed in more than one study categories	4.1	3.8	7.1	6.8	19.5

[a]Employment Categories

a. Hospital Administrators
   1. Non-ACHA-Affiliate and Non-MHA
   2. Non-ACHA-Affiliate with MHA
   3. ACHA-Affiliate and Non-MHA
   4. ACHA-Affiliate with MHA
b. Blue Cross Chief Executives
c. Comprehensive Health Planning Area-Wide Directors
d. Regional Medical Programs
   1. Directors
   2. Administrative Officers

TABLE 12 continued

Employment Categories Studied[a]								
c	d.1.	d.2.	e	f	g	h	i	j
89	32	34	34	185	35	46	14	39
42	8	8	2	31	4	26	7	14
47.2	25.0	23.5	5.9	16.8	11.4	56.5	50.0	35.9
14	3	6	6	2	0	6	3	2
15.7	9.4	17.6	17.6	1.1	0	13.1	21.4	5.1
62.9	34.4	41.1	23.5	17.9	11.4	69.6	71.4	41.0

[a]Employment Categories

e. State Health Department Directors
f. Other State Agency Directors
g. U. S. Department of HEW Health-Related Executives
h. Hospital Association Directors
i. Miscellaneous Health Organization Directors
j. Medical Group Practice Administrators

more times from previous administrative positions in hospitals.

Table 13 presents the result of testing this hypothesis. Once again, the groups of hospital administrators were separated into those who were not affiliated with the American College of Hospital Administrators and those who were affiliated with the American College of Hospital Administrators.

As can be readily seen, the portion of the hypothesis which stated that all hospital administrators had leveraged at least once was rejected. All subgroups studied were found to contain a portion of administrators who had not leveraged from previous administrative positions in hospitals. The second portion of the hypothesis, that 60 per cent of all hospital administrators had leveraged two or more times from previous administrative positions in hospitals, was also rejected. No subgroup of hospital administrators demonstrated leveraging two or more times at or above the 60 per cent level.

A comparison of the various percentages of those hospital administrators not leveraging or leveraging two or more times between the several groupings revealed some statistically significant differences. In the group of hospital administrators not affiliated with the American College of Hospital Administrators, 57.2 per cent of those administrators without master's degrees in health administration had never leveraged as compared to 23.1 per cent of

TABLE 13

HYPOTHESIS III-2

Frequency of Leveraging Among Hospital Administrators

Times Leveraged	Non-ACHA-Affiliates		ACHA-Affiliates	
	Non-MHA	MHA	Non-MHA	MHA
0	83	6	42	18
1	37	7	40	45
2	17	5	22	33
3	3	4	15	20
4	0	0	6	7
5	0	1	7	2
6	1	1	0	0
7	0	0	0	0
8	0	0	1	0
No Information	4	2	0	1
TOTALS	145	26	133	126
% Not Leveraging	57.2%	23.1%	31.6%	14.3%
	Difference statistically significant at the desired level ($P < .01$)		Difference statistically significant at the desired level ($P < .01$)	

TABLE 13 continued

% Leveraging 2 or more times	14.4%	42.3%	38.3%	49.2%
	Difference statistically significant at the desired level ($P < .01$)		Difference not statistically significant at the desired level ($P > .05$)	

those administrators with master's degrees. This difference was statistically significant at the 1 per cent level. Also, 14.4 per cent of the members of this group without master's degrees in health administration had leveraged two or more times as compared with 42.3 per cent of those with master's degrees. This difference was also statistically significant at the 1 per cent level.

With respect to those hospital administrators affiliated with the American College of Hospital Administrators, it was found that of these without master's degrees in health administration, 31.6 per cent had never leveraged as compared to 14.3 per cent of those with master's degrees in health administration. This difference was statistically significant at the 1 per cent level. Also, it was found that 38.3 per cent of those without master's degrees in health administration had leveraged two or more times as compared to 49.2 per cent of those with master's degrees. This difference was not statistically significant.

In summary, this hypothesis was not supported by the data.

Hypothesis III-3

> Less than 1 per cent of the hospital administrators surveyed leveraged back into a hospital with which they were previously associated in an administrative position.

The result of this analysis will be found in Table 14. It will be seen that the analysis separated those hospital administrators directly affiliated with a religious order

TABLE 14

HYPOTHESIS III-3

Frequency of Leveraging Back to a Previous Employer
Among Hospital Administrators

Non-ACHA-Affiliates

Previous Position	Sisters	Non-Sisters
Administrator	0	1 Non-MHA
Other Administrative Position	0	0
Other Non-Administrative Position	1 Non-MHA	1 Non-MHA

ACHA-Affiliates

Previous Position	Sisters	Non-Sisters
Administrator	1 MHA	3 — 2 MHA, 1 Non-MHA
Other Administrative Position	0	3 — 1 MHA, 2 Non-MHA
Other Non-Administrative Position	2 Non-MHA	1 Non-MHA

SUMMARY:

Eight persons leveraged back to a hospital in which they had held an administrative position (1.9%). Five persons leveraged back to a hospital in which they had held a non-administrative position.

who carried the title "Sister" from those who were not so affiliated. The reason for these groupings was an understanding of the author that "Sisters" had less control over their assignments and may not be in position to seek or turn down an offer to return to a previous institution.

In total, it was observed that eight persons (1.9 per cent) leveraged back to a hospital to the position of administrator after having once served that particular hospital in an administrative position. In each case, a position with a different hospital intervened between the appointments.

The above calculation reveals that this hypothesis failed.

Hypothesis III-4

> There is no difference in the tenure of those in hospital administration positions between those administrators possessing master's degrees in health administration as compared to those without such a degree.

The result of this analysis is shown in Table 15. For purpose of analysis, the hospital administrators were divided into those who were not affiliated with the American College of Hospital Administrators and those who were affiliated with the American College of Hospital Administrators. With respect to those who were not affiliated with the American College of Hospital Administrators, the mean of the tenure in the current position of those without master's degrees in health administration was found to be

TABLE 15

HYPOTHESIS III-4

Tenure Comparisons - Hospital Administrators

Non-ACHA-Affiliates

Current Position

Non-MHA			MHA		
Sample Size	Mean Tenure	Standard Deviation	Sample Size	Mean Tenure	Standard Deviation
138	6.5	7.3	23	3.9	4.3

t test = -1.70 (P > .05)

Difference in tenure is not statistically significant at the desired level

Previous Positions

Non-MHA			MHA		
Sample Size	Mean Tenure	Standard Deviation	Sample Size	Mean Tenure	Standard Deviation
28	5.0	4.0	11	4.1	3.0

t test = -0.69 (P > .05)

Difference in tenure is not statistically significant at the desired level

TABLE 15 continued

ACHA-Affiliates

Current Position

Non-MHA			MHA		
Sample Size	Mean Tenure	Standard Deviation	Sample Size	Mean Tenure	Standard Deviation
133	9.9	7.5	126	6.7	5.5

t test = -3.82 (P < .001)

Difference in tenure is statistically significant at the desired level

Previous Positions

Non-MHA			MHA		
Sample Size	Mean Tenure	Standard Deviation	Sample Size	Mean Tenure	Standard Deviation
61	5.4	3.8	48	4.0	3.0

t test = -2.00 (P < .05)

Difference in tenure is statistically significant at the desired level

6.5 years while for those with master's degrees in health administration, the mean was 3.9 years. The difference between these two groups was found not to be statistically significant. With respect to previous positions held by these administrators, of the group without master's degrees in health administration, the mean tenure was 5.0 years and for those with master's degrees in health administration it was found to be 4.1 years. Once again, there was not a statistically significant difference between these means.

In the analysis of those hospital administrators affiliated with the American College of Hospital Administrators, significant differences were found. With respect to current positions for these hospital administrators, those without master's degrees in health administration demonstrated a mean tenure of 9.9 years as compared to a mean tenure of 6.7 years for those with master's degrees in health administration. This difference was statistically significant at the 0.1 per cent level. With respect to previous positions, those hospital administrators without master's degrees in health administration demonstrated a mean tenure of 5.4 years as compared to 4.0 years for those administrators with master's degrees in health administration. Again, this difference was statistically significant, this time at the 5 per cent level.

Thus, the hypothesis was supported with respect to those hospital administrators not affiliated with the American College of Hospital Administrators but was rejected

with respect to those administrators affiliated with the American College of Hospital Administrators. Though not statistically significant in all cases, hospital administrators without master's degrees demonstrated longer tenure in both current and previous positions.

CHAPTER IV

SUMMARY, CONCLUSIONS, AND IMPLICATIONS FOR FURTHER RESEARCH

Summary

Introduction

Since 1900, significant changes have occurred in the health care system. Patient care has been transformed from a primarily physician-patient relationship to a complex relationship involving the patient, physicians, other allied health personnel, and health organizations. These major changes in the delivery of health care have been accompanied by increasing need for administrative leadership in organizations. In the early 1900's, physicians and nurses were looked to for the provision of the necessary leadership. However, as the developing organizations became more complex, leadership needs could not be filled in this manner. In 1934, the first graduate program in health administration was established by the University of Chicago. Since that time, more than 30 additional graduate programs have been established. Already, 7,000 persons have graduated from such programs and the output, by 1972, should be approximately 800 persons per year. The primary goal of these

programs is to produce administrative leaderships for the great variety of health organizations existing in our country.

This study was designed to investigate the impact of such graduate programs on the field of hospital administration and to study the continued involvement of physicians in the administration of certain types of health programs. Several prior studies revealed the variety of employment situations currently filled by program graduates. However, little attention seems to have been paid to examining whether such graduates are filling the top administrative positions in such organizations. Also, in view of growing concern about employee loyalty to his employer, this study investigated several aspects of corporate loyalty.

Hypotheses

The following hypotheses were designed to explore the above areas in this research project:

Group I - Educational backgrounds of health administrators outside hospitals

1) Graduates of master's programs in health administration occupy 20 per cent or more of the health leadership positions outside hospitals.

2) Physicians without master's degrees in health administration fill the minority of top administrative positions in federal and state government agencies and Regional Medical Programs.

Group II - Impact of graduate programs in health administration on hospital administration

1) The larger the hospital, the more

likely the administrator possesses a master's degree in health administration.

2) There is no difference in the average age of hospital administrators with master's degrees in health administration as compared to hospital administrators without such a degree.

3) Each year, starting in 1960, the percentage of persons with master's degrees in health administration appointed to the top administrative positions in hospitals has not changed.

Group III - Impact of leveraging

1) Leveraging, when it occurs, will usually take place within a given category of the employment (e.g., among similar employers), rather than among various categories (mobility is primarily limited to within a specific category of employment).

2) All hospital administrators have leveraged at least once and at least 60 per cent have leveraged two or more times from previous administrative positions in hospitals.

3) Less than 1 per cent of the hospital administrators surveyed leveraged back into a hospital with which they were previously associated in an administrative position.

4) There is no difference in the tenure of those in hospital administration positions between those administrators possessing master's degrees in health administration as compared to those without such a degree.

Methodology and Sample

The health administrators selected for this study fell into the following employment categories:

a) Hospital administrators

b) Blue Cross chief executives

c) Comprehensive health planning area-wide directors

d) Regional Medical Program directors and administrative officers

e) State health department directors

f) Other state agency directors

g) U. S. Department of Health, Education and Welfare health-related executives

h) Hospital association directors

i) Miscellaneous health organization chief executives

j) Medical group practice administrators

The August 1, 1971 Guide Issue of the American Hospital Association was utilized to identify the above groups. However, two of the groups were not listed in the Guide Issue and were added because of their growing importance in the delivery of health care in our country. These groups were Regional Medical Programs directors and administrative officers and medical group practice administrators. In total, the ten categories represented more than 92 per cent of all known health-related employment categories of graduates of selected AUPHA member programs.

With respect to sample size, 10 per cent of the hospital administrators of the nation were selected by random sampling as were 10 per cent of the medical group practice administrators. This resulted in sample sizes of 728 and 79 respectively. In the other eight categories the sample selected was 100 per cent of the persons known to be

occupying such positions. Data were obtained by utilizing biographical listings in the Directory of the American College of Hospital Administrators for all these identified as hospital administrators and affiliated with the college. All other persons were sent personally addressed questionnaires requesting the necessary information.

Statistical Analysis and Results

Hypothesis I-1

Graduates of master's programs in health administration occupy 20 per cent or more of the health leadership positions outside hospitals.

This hypothesis was tested by determining the percentage of persons with master's degrees in health administration occupying the top leadership positions in all groups studied other than hospitals. The calculated weighted percentage for all groups combined was 8.0 per cent and for all categories with the exception of medical group practice administrators was 12.9 per cent. The difference from the hypothesized 20 per cent was significant at the 0.1 per cent level for both percentages. Thus, this hypothesis was rejected.

Hypothesis I-2

Physicians without master's degrees in health administration fill the minority of top administrative positions in federal and state government agencies and Regional Medical Programs.

This hypothesis was tested by determining the number of physicians without master's degrees in health administration occupying the top leadership position in the stated

organizations. The calculated weighted percentage of persons with a medical degree but without a master's degree in health administration in the leadership role in such organizations was 57.4 per cent. The difference between this weighted percentage and the hypothesized percentage of 50 per cent or less was significant at the 1 per cent level. Thus, the results of these calculations reject the hypothesis as stated.

Hypothesis II-1

The larger the hospital, the more likely the administrator possesses a master's degree in health administration.

This hypothesis was tested by arraying hospitals surveyed by bed size from smallest to largest in specific groupings and calculating the percentage of administrators of these institutions who possessed master's degrees in health administration. The calculation demonstrated that the proportion of hospitals with administrators who possessed master's degrees in health administration increased from the smallest size institutions up to the category of 201 to 300 beds. Beyond this category, the percentage decreased. Thus, since the proportion of administrators with master's degrees in health administration was found not to be a continuously increasing function of bed size, this hypothesis was rejected.

Hypothesis II-2

There is no difference in the average age of hospital administrators with master's degrees in health

administration as compared to hospital administrators without such a degree.

This hypothesis was tested by calculation of mean age of hospital administrators with and without master's degrees in health administration and further by testing the statistical significance of the differences. For the group of hospital administrators not affiliated with the American College of Hospital Administrators, those without master's degrees in health administration had a mean age of 47.4. Those with master's degrees in health administration had a mean age of 44.6. The difference in ages between the two groups was not statistically significant. With respect to hospital administrators affiliated with the American College of Hospital Administrators, those without master's degrees in health administration had a mean age of 52.8. Those with master's degrees in health administration had a mean age of 44.4. This difference in ages was statistically significant. Thus, the hypothesis was supported with respect to the group of administrators not affiliated with the American College of Hospital Administrators but was rejected with respect to those who were affiliated with the American College of Hospital Administrators.

Hypothesis II-3

Each year, starting in 1960, the percentage of persons with master's degrees in health administration appointed to the top administrative positions in hospitals has not changed.

This hypothesis was tested by noting, for each appointment to hospital administrator between the years of

1960 and 1970, whether the appointee had a master's degree in health administration. The result of this analysis showed that there was not a statistically significant difference among the 11 years with respect to the percentage of hospital administrators appointed to the position of hospital administrator who possessed a master's degree in health administration. Thus, the hypothesis was rejected.

Hypothesis III-1

> Leveraging, when it occurs, will usually take place within a given category of employment (e.g., among similar employers), rather than among various categories (mobility is primarily limited to within a specific category of employment).

The testing of this hypothesis was accomplished by determining the category of employment before and after each employment change of all persons in the survey group. Of all employment categories, only comprehensive health planning area-wide directors, hospital association directors, and miscellaneous health organizations chief executives demonstrated mobility to the extent that the majority of those in each group had held employment in more than one of the health employment categories studied. Less than 10 per cent of the hospital administrators in each of the four subgroups had held employment in more than one health-related employment category. All other employment groups studied fell between 10 per cent and 41.1 per cent. Thus, the hypothesis was supported for seven out of ten of the health employment categories but was rejected in three categories.

Hypothesis III-2

All hospital administrators have leveraged at least once and at least 60 per cent have leveraged two or more times from previous administrative positions in hospitals.

This hypothesis was tested by determining the percentage of health administrators who had not leveraged, those who leveraged once, and those who leveraged two or more times. It was found that the hypothesis was rejected with respect to both leveraging once and leveraging two or more times. This result was true for all four subgroups of hospital administrators, namely, those who were not affiliated with the American College of Hospital Administrators with or without master's degrees in health administration and for those who were affiliated with the American College of Hospital Administrators, with and without master's degrees. However, further analysis of the data revealed that significant differences existed among the subgroups of hospital administrators. In the group of hospital administrators not affiliated with the American College of Hospital Administrators, 57.2 per cent of those administrators without master's degrees in health administration had never leveraged as compared to 23.1 per cent of those administrators with master's degrees. This difference was statistically significant. Also, 14.4 per cent of the members of this group without master's degrees in health administration had leveraged two or more times as compared with 42.3 per cent of those with master's degrees. This difference was also

statistically significant.

With respect to those hospital administrators affiliated with the American College of Hospital Administrators, of those without master's degrees in health administration, 31.6 per cent had never leveraged as compared to 14.3 per cent of those with master's degrees in health administration. This difference was statistically significant. The final comparison, concerning those who had leveraged two or more times, showed that 38.3 per cent of those without master's degrees had leveraged two or more times as compared to 49.2 per cent of those with master's degrees. This final comparison was not statistically significant.

Hypothesis III-3

> Less than 1 per cent of hospital administrators surveyed leveraged back into a hospital with which they were previously associated in an administrative position.

This hypothesis was tested by determining the percentage of hospital administrators who returned to a hospital having formerly served that hospital in an administrative position. It was found that 1.9 per cent of the hospital administrators leveraged back to a hospital in which they previously held an administrative position. In each case, a position with a different hospital intervened between the appointments. Thus, the hypothesis was rejected.

Hypothesis III-4

> There is no difference in the tenure of those in hospital administration positions between those administrators possessing master's degrees in health

administration as compared to those without such a degree.

This hypothesis was tested by comparing the tenure in currently held administrative positions and in positions held prior to the current position by persons both with and without master's degrees in health administration. For this analysis, the administrators were divided into those where who were and those who were not affiliated with the American College of Hospital Administrators. With respect to those who were not affiliated with the American College of Hospital Administrators, the mean of the tenure in the current position of those without master's degrees in health administration was found to be 6.5 years, while for those with master's degrees in health administration, the mean was 3.9 years. The difference between these two groups was not statistically significant. With respect to previous positions held by these administrators, of the group without master's degrees in health administration, the mean tenure was 5.0 years and for those with master's degrees in health administration it was found to be 4.1 years. Once again, there was not a statistically significant difference between these means.

With respect to those hospital administrators affiliated with the American College of Hospital Administrators, those administrators without master's degrees in health administration demonstrated a mean tenure in previous positions of 9.9 years as compared to a mean tenure of 6.7

years for those with master's degrees in health administration. This difference was statistically significant. With respect to previous positions, those hospital administrators without master's degrees in health administration demonstrated a mean tenure of 5.4 years as compared to 4.0 years for those administrators with master's degrees in health administration. Again, this difference was statistically significant.

Thus, the hypothesis was supported with respect to those hospital administrators not affiliated with the American College of Hospital Administrators, but was rejected with respect to those administrators affiliated with the American College of Hospital Administrators.

Conclusions

On the Educational Background of Health Administrators Outside Hospitals

Even though over 1,000 graduates of programs in health administration are occupying positions in the health industry outside of hospitals, it was found that such graduates did not occupy more than 20 per cent of the top health administrative positions. Thus, it must be assumed that the vast majority of such graduates are occupying positions below the top administrative positions either in assistant-type categories or in staff roles. Whether this figure will increase in the coming years as the mean age of graduates increases is not known. However, it is obvious that

at this point in time, the majority of health administrative positions in the country are occupied by non-graduates of master's programs in health administration.

The proportion of physicians without master's degrees in health administration who occupy the top leadership positions in state and federal programs was found not to be below 50 per cent. This proportion would appear to indicate that for these programs, medical leadership is either sought after and/or relatively little importance is placed upon one's possession of a master's degree in health administration. While the number of physicians with master's degrees in health administration is not known, it is known that few are employed in the categories studied. These roles continue to be filled by physicians without such degrees.

On the Impact of Graduate Programs in Health and Hospital Administration on Hospital Administration

Graduates of programs in health administration as a group do not represent the only source of candidates for the position of administrator in hospitals. In the last 11 years, the proportion of persons with master's degrees in health administration appointed to the top administrative position in hospitals has shown no significant change in any direction. It was also determined that the proportion of persons with master's degrees in health administration occupying the top administrative position in hospitals did vary according to hospital bed size. However, contrary to expectation, the variance was not directly related to

increasing hospital size. It was found that both small (0 to 50 beds) and large (over 1,000 beds) hospitals employed course graduates less often than hospitals of bed size between the two. Thus, many hospital administrator positions are occupied by non-course graduates and there is no evidence that this situation has shown any tendency toward change in the years 1960 to 1970.

Age differences among hospital administrators with and without master's degrees in health administration were observed. Administrators with master's degrees in health administration were found to be younger. However, the difference in ages was statistically significant only for the group affiliated with the American College of Hospital Administrators. In this group, the difference was 8.4 years demonstrating that the possession of a master's degree in health administration may make possible one's appointment to a position of hospital administrator at an earlier age.

On the Impact of Leveraging

Health administrators tend to maintain their employment in only one health administration employment category. Even persons with master's degrees in health administration demonstrate this tendency. Thus, even though graduate programs are attempting to prepare graduates for a wide variety of health-related roles, such individuals apparently are not being sought for or are not seeking employment in

a variety of employment categories but tend to remain employed in the category of original employment.

Hospital administrators demonstrate more employer loyalty than suggested by Professor Eugene Jennings. In all four subgroups of hospital administrators, Jennings assertions concerning leveraging were not upheld. Between 14.3 per cent and 57.2 per cent of the hospital administrators had never leveraged. Between 14.4 per cent and 49.2 per cent had leveraged two or more times. These data suggest that many administrators have worked in only one hospital during their careers to date, either having been hired directly into the administrator's position or working himself up to that position from within that hospital. A statistically significantly greater proportion of administrators without a master's degree have followed this pattern than have those without a master's degree. The latter group of administrators have shown a greater tendency to have been employed by two or more hospitals. Thus, the possession of a master's degree in health administration tends to make the hospital administrator more mobile or prone to change employers.

Another assertion of Jennings was related to the potential return of an individual to his former employer with another employer intervening. The assertion was that less than 1 per cent of the administrators leveraged back to a hospital with which they were previously associated in an administrative position. Among the administrators surveyed,

eight (1.9 per cent) were found to have so leveraged. While the hypothesis was not supported, the frequency of leveraging back was low and indicates that little likelihood exists for the employment of an individual in the position of hospital administrator who had previously served that hospital in an administrative position.

In all tenure comparisons, hospital administrators without master's degrees in health administration demonstrated longer tenure than those with such a degree. However, the differences were statistically significant only for those affiliated with the American College of Hospital Administrators. This finding can be related to an earlier finding indicating that those administrators with master's degrees are more mobile and tend to hold positions with more than one employer. Thus, as a group, their tenure would be shorter. When tenure in previous positions was compared to tenure in the current position, differences were also observed. In all but the subgroup of non-affiliates of the American College of Hospital Administrators with master's degrees in health administration, tenure in the current position exceeded the tenure in previous positions. This suggests that tenure may increase when one reaches the top administrative position or as one moves into subsequent top administrative positions. This difference will become larger with time since the tenure for current positions was cut off at the time of collecting the research data.

Implications for Further Research

Given the state of the health care system at this point in time, additional research in the area of health administration is needed. While this study revealed that many health administrative positions are filled by non-graduates of programs in health administration, the study did not answer the question, "Why?". Research efforts should be directed toward analyzing the actions of governing boards or those responsible for employing health administrators to determine the factors involved in employing health administrators. If program graduates are not considered the prime candidates for these roles, why are they not so considered, and what type of person is being sought?

Another, and obvious area of additional research, would be to repeat portions of this study at periodic intervals in the years to come. Such studies would reveal any changes that might be taking place with respect to health administrative careers. Such information should prove interesting and may be able to identify the impact of graduate programs in health administration upon the health administrative field over time.

In the area of hospital administration, obtaining information from a larger sample of hospitals would provide an opportunity to breakdown the analysis of backgrounds of hospital administrators into many small subgroups. These subgroups would provide for the analysis of the data by

considering the factors of control, service, length of stay and bed size. This would make possible the comparison of the subgroups and the determination of specific differences among the administrators seeking positions or holding positions in the various subgroups. This current study essentially treated hospital administrators in one group so that such comparisons were not possible.

It is the author's understanding that the W. K. Kellogg Foundation has agreed to support a national commission to study the field of health administration. This commission would undertake an in-depth analysis of the need for and the education of health administrators. This author looks forward to the ultimate report of this commission's efforts.

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BIOGRAPHICAL SKETCH

Stuart A. Wesbury, Jr. was born December 13, 1933, in Philadelphia, Pennsylvania. He graduated from Central High School, Philadelphia, in 1951 and entered Temple University School of Pharmacy from which he received his bachelor's degree in pharmacy in 1955. He then spent three years as a commissioned officer in the United States Public Health Service serving in a variety of positions in pharmacy and health administration. In 1958 he entered the University of Michigan Graduate Program in Hospital Administration from which he received his master's degree in hospital administration with high distinction in 1960, having served his hospital administrative residency in the Delaware Hospital, Wilmington, Delaware.

In 1960, he was appointed Administrative Assistant of The Delaware Hospital. In 1961 he was appointed Assistant Administrator of Bronson Methodist Hospital, Kalamazoo, Michigan, in which position he served until appointed Associate Director of the Shands Teaching Hospital and Clinics and Assistant Professor, Graduate Program in Health and Hospital Administration, University of Florida in 1966. In 1967, he was promoted to Director of the Shands Teaching

Hospital and Clinics and Associate Professor, Associate Chairman, of the Graduate Program in Health and Hospital Administration, In 1966, he entered the University of Florida's doctoral program in Economics and Business Administration.

Stuart A. Wesbury, Jr. is married to the former June Carol Davis, and they have four sons. He is a Fellow of the American College of Hospital Administrators, a member of the American Hospital Association, and a member of the Hospital Management Systems Society. He has served as consultant to numerous health-related organizations and has published several articles in hospital-related journals. Currently he is serving as Director and Associate Professor of Graduate Studies in Health Services Management, School of Medicine, University of Missouri, Columbia, Missouri.

I certify that I have read this study and that in my opinion it conforms to acceptable standards of scholarly presentation and is fully adequate, in scope and quality, as a dissertation for the degree of Doctor of Philosophy.

William V. Wilmot, Jr., Chairman
Professor of Management

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Ralph H. Blodgett
Professor of Economics

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John M. Champion
Professor of Management and of Health and Hospital Administration

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Charles W. Fristoe
Associate Professor of Economics

This dissertation was submitted to the Department of Management in the College of Business Administration and to the Graduate Council, and was accepted as partial fulfillment of the requirements for the degree of Doctor of Philosophy.

August, 1972

A. G. Smith
Dean, Graduate School